

## Editor's Note to Seniors . . .

This is the 21st graduate education issue published by CEE. It is distributed to chemical engineering seniors interested in and qualified for graduate school. We include articles on graduate courses, research at various universities, and departmental announcements on graduate programs. In order for you to obtain a broad idea of the nature of graduate work, we encourage you to read not only the articles in this issue, but also those in previous issues. A list of the papers from recent years follows. If you would like a copy of a previous fall issue, please write CEE.

Ray Fahien, Editor, CEE  
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### Fall 1988

Arkun, Charos, Reeves • *Model Predictive Control*  
Briedis • *Technical Communications for Grad Students*  
Deshpande • *Multivariable Control Methods*  
Glandt • *Topics in Random Media*  
Ng, Gonzalez, Hu • *Biochemical Engineering*  
Goosen • *Research - Animal Cell Culture in Microcapsules*  
Teja, Schaeffer • *Research - Thermodynamics and Fluid Properties*  
Duda • *Graduation: The Beginning of Your Education*

### Fall 1987

Amundson • *American University Graduate Work*  
DeCoursey • *Mass Transfer with Chemical Reaction*  
Takoudis • *Microelectronics Processing*  
McCready, Leighton • *Transport Phenomena*  
Seider, Ungar • *Nonlinear Systems*  
Skaates • *Polymerization Reactor Engineering*  
Edie, Dunham • *Research - Advanced Engineering Fibers*  
Allen, Petit • *Research - Unit Operations in Microgravity*  
Bartusiak, Price • *Process Modeling and Control*  
Bartholomew • *Advanced Combustion Engineering*

### Fall 1986

Bird • *Hougen's Principles*  
Amundson • *Research Landmarks for Chemical Engineers*  
Duda • *Graduate Studies: The Middle Way*  
Jorne • *Chemical Engineering: A Crisis of Maturity*  
Stephanopoulos • *Artificial Intelligence in Process Engineering: A Research Program*  
Venkatasubramanian • *A Course in Artificial Intelligence in Process Engineering*  
Moo-Young • *Biochemical Engineering and Industrial Biotechnology*  
Babu, Sukanek • *The Processing of Electronic Materials*  
Datye, Smith, Williams • *Characterization of Porous Materials and Powders*  
Blackmond • *A Workshop in Graduate Education*

### Fall 1985

Bailey, Ollis • *Biochemical Engineering Fundamentals*  
Belfort • *Separation and Recovery Processes*  
Graham, Jutan • *Teaching Time Series*  
Soong • *Polymer Processing*  
Van Zee • *Electrochemical and Corrosion Engineering*  
Radovic • *Coal Utilization and Conversion Processes*  
Shah, Hayhurst • *Molecular Sieve Technology*  
Bailie, Kono, Henry • *Fluidization*  
Kauffman • *Is Grad School Worth It?*  
Felder • *The Generic Quiz*

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### Fall 1984

Lauffenburger, et al. • *Applied Mathematics*  
Marnell • *Graduate Plant Design*  
Scamehorn • *Colloid and Surface Science*  
Shah • *Heterogeneous Catalysis with Video-Based Seminars*  
Zygourakis • *Linear Algebra*  
Bartholomew, Hecker • *Research on Catalysis*  
Converse, et al. • *Bio-Chemical Conversion of Biomass*  
Fair • *Separations Research*  
Edie • *Graduate Residency at Clemson*  
McConica • *Semiconductor Processing*  
Duda • *Misconceptions Concerning Grad School*

### Fall 1983

Davis • *Numerical Methods and Modeling*  
Sawin, Reif • *Plasma Processing in Integrated Circuit Fabrication*  
Shaewitz • *Advanced Topics in Heat and Mass Transfer*  
Takoudis • *Chemical Reactor Design*  
Valle-Riestra • *Project Evaluation in the Chemical Process Industries*  
Woods • *Surface Phenomena*  
Middleman • *Research on Cleaning Up in San Diego*  
Serageldin • *Research on Combustion*  
Wankat, Oreovicz • *Grad Student's Guide to Academic Job Hunting*  
Bird • *Book Writing and ChE Education*  
Thomson, Simmons • *Grad Education Wins in Interstate Rivalry*

### Fall 1982

Hightower • *Oxidative Dehydrogenation Over Ferrite Catalysts*  
Mesler • *Nucleate Boiling*  
Weiland, Taylor • *Mass Transfer*  
Dullien • *Fundamentals of Petroleum Production*  
Seapan • *Air Pollution for Engineers*  
Skaates • *Catalysis*  
Baird, Wilkes • *Polymer Education and Research*  
Fenn • *Research in Engineering*

### Fall 1981

Abbott • *Classical Thermodynamics*  
Butt, Kung • *Catalysis and Catalytic Reaction Engineering*  
Chen, et al. • *Parametric Pumping*  
Gubbins, Street • *Molecular Thermodynamics and Computer Simulation*  
Guin, et al. • *Coal Liquefaction and Desulfurization*  
Thomson • *Oil Shale Char Reactions*  
Bartholomew • *Kinetics and Catalysis*  
Hassler • *Chemical Engineering Analysis*  
Miller • *Underground Processing*  
Wankat • *Separation Processes*  
Wolf • *Heterogeneous Catalysis*